IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of S. KULKARNI, et al.	))) Examiner: C. SUNG) Art Unit: 2884

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S. KULKARNI, et al.)
) Art Unit: 2884
Serial No.: 09/905,418)
) Confirmation: 4726
Filed: July 13, 2001)
)
For: **NUCLEAR CAMERA**)
 WITH OPEN AND)
 FLEXIBLE SOFTWARE)
 ARCHITECTURE)
)
Date of Last Office Action:)
November 17, 2006)
)
Attorney Docket No.:) Cleveland, OH 44114
PHUS019011US / PKRZ 2 00876) April 30, 2007

REPLY BRIEF

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

      This Brief is in Reply to the Examiner's Answer of April 2, 2007. This Brief is limited to the new issues which were raised in the Examiner's Answer.

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(1)-(3)

The appellant and the Examiner are in agreement on these sections.

(4) Status of Amendments After Final

The status of the amendment of January 18, 2007 is still unsettled. The entry of amendments being petitionable rather than appealable, the appellants are filing a petition for entry of the January 18, 2007 Amendment E concurrently with this Reply Brief.

Although the appellants ask for no action by the Board on the following request for reconsideration and entry, the appellants take this opportunity to ask the Examiner to reconsider her decision not to enter the Amendment After Final. The Examiner has correctly pointed to 37 CFR 1.33(a) which references § 1.116 as setting the standards for entering such an amendment. However, the Examiner then proceeds to quote numerous sections relating to affidavits and evidence which are not relevant and fails to quote from § 1.116. The appellants direct the Examiner's particular attention to § 1.116(b)(2) which states that an amendment presenting rejected claims in better form for consideration on appeal may be admitted. For the reasons set forth in Proposed Amendment E, Amendment E places the claims in better form for consideration on Appeal and raises no new issues and requires no further search or consideration. Accordingly, it is requested that the Examiner reconsider her decision and enter Amendment E.

Returning to issues before the Board, the appellants have acknowledged that there are antecedent basis defects in claim 14 and typographical errors in claim 20. If the Board agrees with the appellant, which for the reasons set forth in the Appeal Brief and below it is submitted the Board should do, it is submitted that it would be inappropriate to cause the application to issue as a patent with defects in these two claims. Accordingly, the appellants ask that the Board not only reverse the Examiner, but also remand the application to the Examiner for the limited purpose of correcting the defects in claims 14 and 20, whether it be by entering Amendment E, Examiner's Amendment, or by requesting further input from the appellant.

(5)-(7)

The appellant and the Examiner are in agreement on these sections.

(8) References Relied Upon

The Clunie reference is newly cited and has not previously been applied against any claims. Moreover, the Examiner has not extended the courtesy of providing a PTO-892 listing such reference nor the courtesy of providing a copy of such reference.

The appellant tried to locate Clunie on the internet, but found that it is a 394 page book that is out of print.

It is interesting that although the Examiner in Section (4) rails that it is inappropriate for the appellant to supply exhibits or evidence after Appeal, the Examiner sees no problem if she does so.

(9)

Because **Section (9)** has been copied word for word from the Final Rejection, it raises no new issues that can be properly addressed in this Brief.

(10) Response to Argument

The References

When two references are combined, the motivation to combine could come from either or both references. The Examiner criticizes the appellant's assertions that Ashburn provides no recognition of these deficiencies nor any motivation to look for solutions as being an inappropriate attack on a single reference. To the contrary, the appellant was is merely pointing out that Ashburn does not provide any motivation to combine. Because the Examiner has failed to point out any portion of Ashburn which would provide such motivation, it is believed that the appellant and the Examiner are in agreement on this point.

Wang, as set forth in the last paragraph of page 289, describes a report generator in which data is entered in report templates using a standardized reporting format. This makes the data readable by and transmittable among a multiplicity of medical institutions. See also, the third from the last line of column 1 of page 288, the

last two paragraphs of the first column of page 289, the first full paragraph of the second column of page 289, the first full paragraph of the first column of page 290, the first full paragraph of the second column of page 290, and the second full paragraph of the first column of page 292. The Examiner asserts that the appellant is incorrect because Wang also relates to the "processing" and "transferring" of various types of patient information. Because the appellant has already acknowledged that Wang relates to transferring, it is submitted that the appellant and the Examiner are in agreement on the transferring point.

The issue between the appellant and the Examiner is whether Wang discloses "processing". The appellant still submits that Wang is devoid of any suggestion of processing in the sense of reconstructing image data into images, calculating trends in a patient's vital signs, determining if a vital sign has passed into a danger region, or the like. Rather, Wang is only concerned with putting existing data into a universally recognizable format so that reports can be read by other medical institutions whether around the world, across the continent, or down the street. It is not concerned with data manipulation beyond format.

In the paragraph that starts at the top of page 13 of the Examiner's Answer, the appellant and the Examiner draw different conclusions from the same facts. Wang focuses on data in the form of text information or numbers and in the first full paragraph in the second column of page 292, indicates a desire to add images to the universal format. The Examiner asserts that this long-felt need may be unsolved due to various factors such as a lack of interest, etc. However, the statement in the middle of this paragraph that "efforts are underway" belies the excuses raised by the Examiner. Rather, it is submitted that this paragraph indicates that there is not only a need, but that others are working to solve it and have not yet done so.

That others have failed to meet this recognized need despite the disclosures of Wang, emphasizes that Wang does not provide an enabling disclosure regarding how to meet the desire to include images in Wang's universally readable report format.

The Invention and References

It is well-established that the invention is defined by the claims. It is completely inappropriate for the Examiner to use phrases such as "the crux of the appellant's invention", "the point of novelty" or the like. Not only is the second full paragraph of page 13 of the Examiner's Answer, in which she attempts to reduce all of the claims of the application to a single sentence inappropriate, it is also incorrect. The appellant requests that this paragraph be stricken from the Examiner's Answer.

The full details of the inventive concepts are set forth below in conjunction with the discussion of the claims. However, by way of brief summary, it will be noted that the claims focus on various aspects. A first aspect involves generating diagnostic images in an open and extensible format. In more specific claims, the scanners reconstruction and storage system also work in this open extensible format. This is as opposed to working in the scanner's own proprietary reconstruction format, generating an image in the proprietary format, and using a converter to convert the image from the proprietary format to the open and extensible format to attach to a report.

A second aspect which is not touched upon by either Ashburn or Wang is controlling a diagnostic scanner using signals or commands in an open and extensible format. When a specialist in one hospital is guiding physicians in another medical facility, as part of the medical procedure it might be appropriate for the physicians in the other medical facility to generate a diagnostic image of the patient to be communicated back to the expert. If the hospital where the medical procedure is being performed has a different brand or possibly even a different model by the same manufacturer, there are problems with the reproducibility of the diagnostic data. Because each scanner uses its own proprietary scan control protocols, the expert cannot communicate how to set up and control the scan at the hospital performing the surgery with accuracy and precision. The resultant images may have different characteristics than the expert is used to which can lead to errors in diagnoses. One aspect of the present application is to have an open and extensible control format for diagnostic scanners.

Using an open and extensible format for control purposes is radically different from converting text or even images into a common format for attachment to

or incorporation in a universally readable report. For example, one is an active assertive use; whereas, the other is passive.

Response to Arguments

Claim 1

The appellant agrees with the Examiner that the first full paragraph in column 2 of page 292 evidences a need or motivation to incorporate images into the Wang reports. However, the "efforts are underway" language in the middle of this paragraph tells the appellant that this need is unfulfilled. Wang provides no enabling disclosure regarding how to incorporate images into his report format.

The Examiner refers to Clunie which has not been made of record in this application or officially cited by the Examiner as a reference, nor has the Examiner provided the appellant with a copy of such reference. From an internet search, it appears that Clunie is a 394 page book which is out of print, hence unavailable.

The appellants reserve the right to respond to the Examiner's assertions about Clunie once such reference is made of record and copies are provided to the appellant.

It should be noted that claim 1 relates to storing image data in the storage medium of the nuclear camera system. It appears from the Examiner's discussion of Clunie that Clunie is concerned with converting images that are in a proprietary format from the proprietary format into a standardized format for attachment to or incorporation into reports. The Examiner makes no suggestion that Clunie would motivate one to redesign a nuclear camera system such that the image which is reconstructed and stored on board is in an extensible and open data format. This would eliminate the need for image data converters of the type which it appears that Clunie may be referencing. Scanners which generate their images in an extensible and open data format also simplify the retrieval and display of current and historic images within the originating institution.

Claims 14 and 20-22

        First, it must be pointed out that claims 14, 20, 21, and 22 are all independent claims, each of which has a different scope. Because the appellant is only entitled to address the Examiner's new arguments, it is believed that the appellant is only entitled to address the arguments of this paragraph. However, it must be emphasized that addressing the arguments of this paragraph as a unit in no way concedes that any one or more of claims 14, 20, 21, and 22 stand or fall together.

        Ashburn does disclose an acknowledged prior art imager which, like other prior art imagers, uses its own proprietary control and data acquisition format and protocols. Wang discloses using XML for various storage and formatting reasons in order to make reports universally readable. The Examiner does not point to a single example in Wang in which Wang suggests using an XML script in an active control signal for controlling any type of equipment, much less a diagnostic imager.

        The Examiner implicitly asserts that if one were to control a diagnostic scanner with XML script, the resultant image would also be in XML script. The appellants disagree. The data acquisition control system and the image reconstruction system of a diagnostic imager are two different systems. One could control a scanner's acquisition in one format and generate diagnostic images in a different format. Indeed, it is submitted that the data acquisition control commonly works in a different format than the format into which an image is reconstructed.

Claims 23 and 26

        The appellants must again note that claims 23 and 26 are different independent claims with different limitations and do not stand or fall together.

        The Examiner asserts that Wang "teaches outputting and storing radiological and imaging data in XML format". While not conceding the correctness of this statement, it should be noted that neither claim 23 nor claim 26 call for merely outputting image data in XML format. Rather, claim 23 requires incorporating new user format requirements into the processing data without requiring a manufacturer's proprietary image format conversion routine. It is submitted that Wang suggests converting data and that, contrary to the Examiner's assertion, Wang does not disclose the generation of image data directly in XML format.
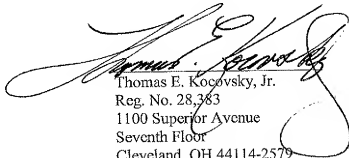
(11)

The appellant and the Examiner are in agreement on this section.

CONCLUSION

For the reasons set forth in the Appeal Brief and as supplemented above, it is submitted that all claims distinguish patentably and unobviously over the references. An early decision reversing the Examiner's rejection of all claims is requested.

Respectfully submitted,

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